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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/742,946	12/20/2000	Steven W. Rogers	5150-52100	8700

35690 7590 10/05/2004

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EXAMINER

KE, PENG

ART UNIT	PAPER NUMBER
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2174

DATE MAILED: 10/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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**Office Action Summary**

Application No.

09/742,946

Applicant(s)

ROGERS ET AL.

Examiner

Peng Ke

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This action is responsive to communications: Amendment, filed on 7/12/04.
2. Claims 1-52 are pending in this application. Claims 1, 10, 18, 26, 32, and 39 are independent claims. In the Amendment, filed on 12/22/03, claims 1, 10, 18, 26, 32, and 39 were amended, and claims 41-52 were added.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-52 rejected under 35 U.S.C. 103(a) as being unpatentable over Yamamoto et al. (US 6,553,431) in view of Hennum et al. (US 6,259,445).

As per claim 1, Yamamoto et al. teaches a method for propagating type information for hardware device nodes in a graphical program, wherein the method operates in a computer including a display screen and a user input device, the method comprising:

displaying on the display screen a of the computer first hardware device node in the graphical program in response to user input wherein the graphical program comprises a plurality of interconnected nodes or icons, wherein the plurality of interconnected nodes or icons visually indicate functionality of the graphical program (Fig 6, col. 9 lines 7-19, Fig. 27A, items "A5F-1", "my digital camera", "engineer fax", "muto@cpdc");

associating the first hardware device node with a hardware device (Fig 9A, item 1, The Scan 5 note is associated with the input image scanner device) ;

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displaying on the display screen a second hardware device node in the graphical program in response to user input (Fig 9A, item 45, The reference displays a list of output device that suppose the input device);

connecting the first hardware device node to the second hardware device node in response to user input (Fig 9A, 9B, col. 10, lines 37-68, The connection between Scan 5 and LP5-1 is made, when the user place LP5-1 to a predetermined position. );

propagating information from the first hardware device node to the second hardware device node, wherein the information specifies the hardware device with which the first hardware device node is associated, wherein said propagating occurs in response to said connecting the first hardware device node to the second hardware device node (col. 3, lines 23-56).

However, Yamamoto fails to teach the method wherein the graphical program is executable by the computer.

Hennum et al. teaches illustrating the sequence of steps, which an executable program would take during an execution. (col. 3, lines 28-44, col. 13, lines 56-68, col. 14, lines 1-5)

It would have been obvious to an artisan at the time of the invention to include Hennum et al.'s teaching with method of Yamamoto in order allow user to store a sequence of commands to be preformed later.

As per claim 2, Yamamoto et al. and Hennum teach the method of claim 1. Yamamoto further teaches wherein said displaying the first and second hardware device nodes in the graphical program comprises including the first and second hardware device nodes in a block

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diagram of the graphical program, wherein the block diagram visually indicates functionality of the graphical program (Fig 9A. items 1, 2, 3).

As per claim 3, Yamamoto et al. and Hennum teach the method of claim 1. Yamamoto further teach the method comprising:

associating the second hardware device node with the hardware device with which the first hardware device node is associated, in response to said propagating the information to the second hardware device node (col. 3, lines 5-24).

As per claim 4, Yamamoto et al. and Hennum teach the method of claim 1. Yamamoto further teaches wherein said connecting the first hardware device node to the second hardware device node comprises connecting, a wire from an output terminal of the first hardware device node to an input terminal of the second hardware device node (col. 10, lines 59-66).

As per claim 5, Yamamoto et al. and Hennum teach the method of claim 1. Yamamoto further teaches wherein said associating the first hardware device node with a hardware device comprises associating the first hardware device node with a hardware device class corresponding to the hardware device (col. 9, lines 7-19);

wherein said propagating information from the first hardware device node to the second hardware device node comprises propagating information specifying the hardware device class with which the first hardware device node is associated (col. 3, lines 5-29).

As per claim 6, Yamamoto et al. and Hennum teach the method of claim 5. Yamamoto further teaches the method comprising:

associating the second hardware device node with the hardware device class, in response to said propagating the information to the second hardware device node (col. 3, lines 5-29).

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As per claim 7, Yamamoto et al. and Hennum teach the method of claim 6. Yamamoto further teaches the method comprising:

associating the second hardware device node with a method of the hardware device class in response to user input (col. 3, lines 5-29; The list of the output devices is provided in response to the input device selected by the user.);

wherein during execution of the graphical program the second hardware device node is operable to invoke the method (col. 14, lines 25-43).

As per claim 8, Yamamoto et al. and Hennum teach the method of claim 6. Yamamoto further teaches the method comprising:

associating the second hardware device node with a property of the hardware device class in response to user input(col. 10, lines 37-68) ;

wherein during execution of the graphical program the second hardware device node is operable to perform one or more of: 1) getting the property; and 2) setting the property (col. 12 lines 35-49).

As per claim 9, Yamamoto et al. and Hennum teach the method of claim 1. Yamamoto further teaches the method comprising:

executing the graphical program, wherein during execution of the graphical program the second hardware device node is operable to access the hardware device (col. 12, lines 8-49).

As per claim 10, Yamamoto et al. teaches a method for performing type checking for a hardware device node in a graphical program, wherein the method operates in a computer including a display screen, the method comprising:

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displaying on the display screen of the computer a first hardware device node in the graphical program in response to user input (Fig 6, col. 9 lines 7-19), where in the graphical program comprises a plurality of interconnected nodes or icons, wherein the plurality of interconnected nodes or icons visually indicate functionality of the graphical program.

associating the first hardware device node with a first hardware device class in response to user input (Fig 9A, item 1, The Scan 5 note is associated with the input devices);

selecting a method or property of the first hardware device class for the first hardware device node in response to user input;

changing the first hardware device node to have an association with a second hardware device class in response to user input (col. 9, lines 7-19); and

performing type checking to determine whether the method or property is valid for the second hardware device class, in response to said changing the first hardware device node to have an association with the second hardware device class (col. 10, lines 37-68, col. 11, lines 1-5).

However, Yamamoto fails to teach the method wherein the graphical program is executable by the computer.

Hennum et al. teaches illustrating the sequence of steps, which an executable program would take during an execution. (col. 3, lines 28-44)

It would have been obvious to an artisan at the time of the invention to include Hennum et al.'s teaching with method of Yamamoto in order allow user to store a sequence of commands to be preformed later.

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As per claim 11, Yamamoto et al. and Hennum teach the method of claim 10. Yamamoto further teach the method comprising:

indicating an invalid condition if the method or property is not valid for the second hardware device class (col. 10, lines 65-68, col. 11, lines 1-5).

As per claim 12, Yamamoto et al. and Hennum teach the method of claim 11. Yamamoto further teaches the method wherein said indicating the invalid condition comprises altering the visual appearance of a wire connected to an input terminal of the first hardware device node, wherein the wire provides information specifying the second hardware device class with which the first hardware device node is associated (Fig 9A, item A).

As per claim 13, Yamamoto et al. and Hennum teach the method of claim 10. Yamamoto further teaches the method comprising: preventing execution of the graphical program if the method or property is not valid for the second hardware device class (col. 11, lines 6-11). It is inherent that if the selection is cancelled then execution of transferring path profile will be prevented.

As per claim 14, Yamamoto et al. and Hennum teach the method of claim 10. Yamamoto further teaches the method wherein the first hardware device node has an input terminal for receiving information specifying a hardware device class with which to associate the first hardware device node (col. 12, lines 35-49); It is inherent when the image is transferred to device, it is transferred into the input terminal of the device;

wherein said associating the first hardware device node with the first hardware device class comprises connecting a first wire to the input terminal (col. 11, lines 34-40);



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wherein said changing the first hardware device node to have an association with a second hardware device class comprises connecting a second wire to the input terminal (col. 9, lines 30- 49).

As per claim 15, Yamamoto et al. and Hennum teach the method of claim 10. Yamamoto further teaches wherein the first hardware device node is a register access node (col. 3, lines 23-45). It is inherent that the hardware that can be selected through the host computer are registered within the system.

As per claim 16, Yamamoto et al. and Hennum teach the method of claim 10. Yamamoto further teaches wherein said performing type checking to determine whether the method or property is valid for the second hardware device class comprises:

determining a list of valid methods and properties for the second hardware device class (col. 9, lines 50-54); and

determining whether the method or property is included in the list of valid method and properties (col. 9, lines 50-54).

As per claim 17, Yamamoto et al. and Hennum teach the method of claim 16. Yamamoto further teaches wherein said determining the list of valid methods and properties for the second hardware device class comprises determining the valid methods and properties from a type library, wherein the type library includes information regarding the second hardware device class (col. 9, lines 30-42). Examiner infers to file server as a type of library.

As per claim 18, it is rejected with same rationale as claim 1. (see rejection above)

As per claim 19, which is dependent on claim 18, it is of the same scope as claim 2. (see rejection above)

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As per claim 20, which is dependent on claim 18, it is of the same scope as claim 3. (see rejection above)

As per claim 21, which is dependent on claim 18, it is of the same scope as claim 4. (see rejection above)

As per claim 22, which is dependent on claim 18, it is of the same scope as claim 5. (see rejection above)

As per claim 23, which is dependent on claim 22, it is of the same scope as claim 6. (see rejection above)

As per claim 26, it is rejected with the same rationale as claim 10. (see rejection above)

As per claim 24, which is dependent on claim 23, it is of the same scope as claim 7. (see rejection above)

As per claim 25, which is dependent on claim 23, it is of the same scope as claim 8. (see rejection above)

As per claim 27, which is dependent on claim 26, it is of the same scope as claim 11. (see rejection above)

As per claim 28, which is dependent on claim 26, it is of the same scope as claim 13. (see rejection above)

As per claim 29, which is dependent on claim 26, it is of the same scope as claim 14. (see rejection above)

As per claim 31, which is dependent on claim 26, it is of the same scope as claim 16. (see rejection above)

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As per claim 30, which is dependent on claim 26, it is of the same scope as claim 15. (see rejection above)

As per claim 32, it is rejected with same rationale as claim 1. (see rejection above)

As per claim 33, which is dependent on claim 32, it is of the same scope as claim 2. (see rejection above)

As per claim 34, which is dependent on claim 32, it is of the same scope as claim 3. (see rejection above)

As per claim 35, which is dependent on claim 32, it is of the same scope as claim 5. (see rejection above)

As per claim 36, Yamamoto et al. and Hennum teach the system of claim 35. Yamamoto further teaches the method wherein the processor is further operable to execute program instructions stored in the memory to associate the second hardware device node with the hardware device class, in response to said propagating the information to the second hardware device node (col. 12, lines 8-34).

As per claim 37, which is dependent on claim 36, it is of the same scope as claim 7. (see rejection above)

As per claim 38, which is dependent on claim 36, it is of the same scope as claim 8. (see rejection above)

As per claim 39, it is rejected with same rationale as claim 10. (see rejection above)

As per claim 40, which is dependent on claim 39, it is of the same scope as claim 16. (see rejection above)

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As per claim 41, Yamamoto et al. and Hennum teach the system of claim 39. Hennum further teaches the method wherein the graphical program is interpretable or compilable to generate instruction executable by the computer. (col. 3, lines 28-44)

As per claim 42, Yamamoto et al. and Hennum teach the system of claim 39, Hennum further teaches the method wherein the graphical program comprises a dataflow diagram (fig. 13c. item 70).

As per claim 43, which is dependent on claim 32, it is of the same scope as claim 41. (see rejection above)

As per claim 44, which is dependent on claim 32, it is of the same scope as claim 42. (see rejection above)

As per claim 45, which is dependent on claim 26, it is of the same scope as claim 41. (see rejection above)

As per claim 46, which is dependent on claim 26, it is of the same scope as claim 42. (see rejection above)

As per claim 47, which is dependent on claim 18, it is of the same scope as claim 41. (see rejection above)

As per claim 48, which is dependent on claim 18, it is of the same scope as claim 42. (see rejection above)

As per claim 49, which is dependent on claim 10, it is of the same scope as claim 41. (see rejection above)

As per claim 50, which is dependent on claim 10, it is of the same scope as claim 42. (see rejection above)

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As per claim 51, which is dependent on claim 1, it is of the same scope as claim 41. (see rejection above)

As per claim 52, which is dependent on claim 1, it is of the same scope as claim 42. (see rejection above)

***Response to Arguments***

Applicant's arguments with respect to claims 1-52 have been considered but are deemed to be moot in view of the new grounds of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peng Ke whose telephone number is (571) 272-4062. The examiner can normally be reached on M-Th and Alternate Fridays 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine L Kincaid can be reached on (571) 272-4063. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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